

1. An endovascular support device comprising at least one compressible stent means encapsulated by a balloon of a balloon catheter for implantation in a vessel within the human body.
2. The endovascular support device of Claim 1 wherein the balloon is adhered to the compressible stent means when encapsulated.
3. The endovascular support device of Claim 1 further comprising at least one retainer means for facilitating delivery of the encapsulated stent means for implantation.
4. The endovascular support device of Claim 1 wherein the stent means comprises at least one expandable unitary wire-like member bent to form a plurality of substantially straight, non-overlapping sections connected by axial bends.
5. The endovascular support device of Claim 1 wherein the balloon defines at least three wing means surrounding the balloon catheter for substantially symmetrical expansion of the stent means.
6. The endovascular support device of Claim 4 wherein the balloon defines a number of wing means selected relative to a number of axial bends of the stent means.
7. The endovascular stent means of Claim 4 wherein the stent means comprises at least two connected wire-like members.
8. A method of manufacture of an endovascular support device comprising:
mounting at least one stent means on a balloon of a balloon catheter;
placing the mounted stent means within a holding means to prevent expansion of the mounted stent means;
heating the mounted stent means within the holding means to cause the balloon to expand around the stent means; and
cooling the balloon catheter within the holding means so that the balloon adheres to the stent means.
9. The method of Claim 8 including the steps of pressurizing the balloon catheter during the heating step and during the cooling step.
10. The method of Claim 8 further comprising the step of forming at least one retainer at an end of the mounted stent means.
11. The method of Claim 8 including the step of removing the holding means after cooling.
12. A method for treating narrowing of vessels within humans comprising the steps of:

providing at least one encapsulated endovascular support device on a balloon catheter;

advancing the balloon catheter and the at least one encapsulated endovascular support device to an area to be treated within the vessels;

5 inflating the balloon catheter to expand the at least one encapsulated endovascular support device within the area to be treated; and

deflating the balloon catheter so that the balloon pulls away from the endovascular support device.

13 A balloon for delivering a stent means to a vessel in a human comprising a selectable
10 number of folded and wrapped wing means for symmetrical expansion of a stent means.

14 The balloon of Claim 13 wherein the stent means is a unitary wire-like member defining substantially straight sections connected by axial turns at each end of the member, the selectable number of folded and wrapped wing means substantially conforming to a number of axial turns at an end of the member.

15 15. The balloon of Claim 13 defining at least one retainer portion for facilitating delivery of the stent means.